

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

TIBOR BOROS, ET AL.

Application No.: Not yet Assigned

Filed:

For: **DETERMINING A SPATIAL  
SIGNATURE USING A ROBUST  
CALIBRATION SIGNAL**

Art Group: 2686

Examiner: MOORE, JAMES K.

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97**

Commissioner for Patents  
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In accordance with the duty of disclosure, enclosed is a copy of Information Disclosure Statement by Applicant (form PTO/SB/08), which is being submitted concurrently with the Continuation Application. It is respectfully requested that the cited references be considered and that the enclosed copy of PTO/SB/08 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s). Some or all of the references listed on the enclosed PTO/SB/08 were previously identified in the parent application (Application No. 10/135,979, filed April 29, 2002) and copies of the references were furnished at that time. Accordingly, per 37 CFR §1.98(d)(1) additional copies of those references are not submitted herewith.

The submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made in the subject application and is not to be construed as an admission that the information cited in this statement is material to patentability.

Please charge any fees due to Deposit Account 02-2666. A duplicate copy of the Fee Transmittal (PTO/SB/17) is enclosed for this purpose.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 10/24/03

  
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Vineta T. Tufono  
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Date

US Department of Commerce Patent and Trademark Office  1 of 9  Form PTO-1449 (Modified)	Atty. Docket No.:	Application No.:
	015685.P023DC	Not yet assigned
	Applicant:	
	Boros et al.	

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Examiner's Initials	Date	Document Number	Name	Class	Sub-Class	Filing Date
	10/04/88	4,775,997	West Jr. et al.			
	01/03/89	4,796,291	Makino			
	05/02/89	4,827,395	Anders et al.			
	05/09/89	4,829,554	Barnes et al.			
	06/06/89	4,837,800	Freeburg et al.			
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	03/20/90	4,910,794	Mahany			
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	10/23/90	4,965,732	Roy, III et al.			
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	01/29/91	4,989,204	Shimizu et al.			
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	1/1/98	98/01963	WO			
	Apr-98	98/17071	WO			
	Jul-98	98/28864	WO			
	7/1/98	98/33346	WO			

*Examiner* *Date Considered*

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Examiner's Initials	Date	Document Number	Name	Class	Sub-Class	Filing Date
	12/02/97	5,694,416	Johnson			
	12/09/97	5,697,066	Acampora			
	03/10/98	5,726,978	Frodigh et al.			
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	04/28/98	5,745,858	Sato et al.			
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	06/30/98	5,774,461	Hyden et al.			
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	03/16/99	5,884,148	Bilgic et al.			
	03/23/99	5,887,038	Golden			
	05/18/99	5,905,721	Liu et al.	455	562	
	02/01/02	6,192,256B1	Whinnett			

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Examiner's Initials	Date	Document Number	Country	Class	Sub-Class	Translation
	Apr-98	WO98/17037	PCT	H04L	27/22	English
	12/14/95	WO95/34103	PCT	H01Q	3/026	English
	5/22/96	EP0713261A1	EPO	H01Q	3/026	English
	7/30/97	EP0786914A2	EPO	H04Q	7/022	English

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

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	10/23/90	4,965,732	Roy, III et al.	364	460	11/02/87
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	01/04/94	5,276,907	Meidan	455	33.3	01/07/91
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	06/25/96	5,530,449	Wachs et al.	342	174	11/18/94
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	Boros et al.	
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Concurrently Herewith		

### US Patent Documents

Examiner's Initials	Date	Document Number	Name	Class	Sub-Class	Filing Date
	11/28/72	3,704,465	Masak et al.			
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	12/03/74	3,852,749	Kohler			
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	01/25/77	4,005,379	Lerner			
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	04/12/88	4,737,975	Shafer			
	05/03/88	4,742,356	Kuipers			
	06/07/88	4,750,147	Roy, III et al.			

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	Acampora et al., "A New Adaptive MAC Layer Protocol for Wireless ATM Networks in Harsh Fading and Interference Environments", 1997 IEEE, pp. 410-415.
	Agee, "Blind Separation and Capture of Communication Signals Using a Multitarget Constant Modulus Beamformer", 10/7/89 Proc. IEEE Military Communications Conference, Vol. 2, pp. 1-12.
	Aschied et al., "An All Digital Receiver Architecture for Bandwidth Efficient Transmission at High Data Rates", 1989, IEEE Transactions on Communications, Vol. 37, No. 8, pp. 804-813.
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	Friedlander, "Direction Finding Using an Interpolated Array", 4/3/90, International Conference on Acoustics, Speech, and Signal Processing, Vol. 5, pp. 2951-2954.

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<p style="text-align: center;">5 of 9</p> <p style="text-align: center;">Form PTO-1449 (Modified)</p>	Atty. Docket No.:	Application No.:
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	6/23/92	5,124,697	Moore			
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	Franks, "Syncrhonization Subsystems: Analysis and Design", 1981, Digital Communications Satellite/Earth Station Engineering, pp. 294-335.
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	Krishnamurthy et al., "Polling Based Media Access Protocols for Use with Smart Adaptive Array Antennas" 1998 IEEE, pp. 337-344.
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	Received at an Antenna Array", Proc. Fifth Annual IEEE Dual Use Technologies and Applications Conference.
	Applications in Mobile Communications", SPIE 1994 "Advanced Signal Processing Algorithms, Architectures, and Implementations V", Vol. 2296, pp. 230-241.

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	11/01/94	5,361,303	Eatwell			
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	Rashid-Farrokh et al., "Downlink and Uplink Capacity Enhancement in Power Controlled Cellular Systems", Proceedings, 1997 IEEE 47th Vehicular Technology Conference, Vol. 2, 5/97,
	Rashid-Farrokh et al., "Downlink Power Control and Base Station Assignment", IEEE Communications Letters, Vol. 1, No. 4, 07/97, pp. 102-104.
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	Rashid-Farrokh et al., "Transmit Beamforming for Cellular Communication Systems", Conference on Information Sciences and Systems, CISS-97; 3/1997, 4 pps.
	Rashid-Farrokh et al., "Transmit Diversity and Equalization for Power Controlled Wireless Networks", Conference Record 31st Asilomar Conference on Signals, Systems, and Computers, Vol. 1, 11/97, pp. 620-624.
	Swindlehurst et al., "Analysis of a Decision Directed Beamformer", IEEE Transactions on Signal Processing, Vol. 43, No. 12, 12/95, pp. 2920-2927.
	Xu et al., "Throughput Multiplication of Wireless LANs for Multimedia Services: SDMA Protocol Design", 1994, IEEE, pp. 1326-1332.

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<p>US Department of Commerce Patent and Trademark Office</p> <p>7 of 9</p> <p>Form PTO-1449 (Modified)</p>	Atty. Docket No.:	Application No.:
	015685.P023DC	Not yet assigned
	Applicant: Boros et al.	Filing Date: Concurrently Herewith

### US Patent Documents

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	08/08/95	5,440,281	Wey et al.			
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	Swindlehurst et al., "Analysis of a Decision Directed Beamformer", IEEE Transactions on Signal Processing, Vol. 43, No. 12, 12/95, pp. 2920-2927.
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	Xu et al., "Throughput Multiplication of Wireless LANs for Multimedia Services: SDMA Protocol Design", 1994, IEEE, pp. 1326-1332.

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Applicant:

Boros et al.

Filing Date:

Concurrently Herewith

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	1/13/95	0 665 665 A1	EPO			
	11/1/97	2 313 261 A	UK			

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<p>Substitute for form 1449A/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p><i>(use as many sheets as necessary)</i></p>				<p><i>Complete if Known</i></p>	
Sheet	9	of	9	Application Number	Not yet Assigned
				Filing Date	
				First Named Inventor	Tibor Boros
				Art Unit	2686
				Examiner Name	MOORE, JAMES K.
				Attorney Docket Number	15685P023DC

Examiner Signature		Date Considered	
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Based on PTO/SB/08A (08-03) as modified by Blakely, Solokoff, Taylor & Zafman (wtr) 08/11/2003.

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